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NOTICE OF ALLOWANCE AND FEE(S) DUE

23623

7590

08/25/2008

AMIN, TUROCY & CALVIN, LLP 1900 EAST 9TH STREET, NATIONAL CITY CENTER 24TH FLOOR, CLEVELAND, OH 44114 EXAMINER

BRADLEY, CHRISTINA

ART UNIT PAPER NUMBER

1654

DATE MAILED: 08/25/2008

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.

10/564,849 01/13/2006 Dorian Bevec ARTHP1116US 2217

TITLE OF INVENTION: BIOLOGICALLY ACTIVE SUBSTANCE OF A VASOACTIVE INTESTINAL PEPTIDE FOR TREATING INTERSTITIAL LUNG INFECTIONS

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	YES	\$720	\$300	\$0	\$1020	11/25/2008

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

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B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

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Complete and send this form, together with applicable fee(s), to: Mail Mail Stop ISSUE FEE

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maintenance fee notifications. Note: A certificate of mailing can only be used for domestic mailings of the CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address) Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission. 23623 7590 08/25/2008 Certificate of Mailing or Transmission AMIN, TUROCY & CALVIN, LLP I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below. 1900 EAST 9TH STREET, NATIONAL CITY CENTER 24TH FLOOR. CLEVELAND, OH 44114 (Depositor's name (Signature (Date APPLICATION NO. FILING DATE FIRST NAMED INVENTOR ATTORNEY DOCKET NO. CONFIRMATION NO. 10/564,849 01/13/2006 Dorian Bevec ARTHP1116US TITLE OF INVENTION: BIOLOGICALLY ACTIVE SUBSTANCE OF A VASOACTIVE INTESTINAL PEPTIDE FOR TREATING INTERSTITIAL LUNG INFECTIONS APPLN. TYPE SMALL ENTITY ISSUE FEE DUE PUBLICATION FEE DUE PREV. PAID ISSUE FEE TOTAL FEE(S) DUE DATE DUE nonprovisional YES \$720 \$300 \$0 \$1020 11/25/2008 **EXAMINER** ART UNIT CLASS-SUBCLASS BRADLEY, CHRISTINA 1654 514-002000 1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363). 2. For printing on the patent front page, list (1) the names of up to 3 registered patent attorneys ☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached. or agents OR, alternatively, (2) the name of a single firm (having as a member a ☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. Use of a Customer Number is required. registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed. 3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type) PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment. (A) NAME OF ASSIGNEE (B) RESIDENCE: (CITY and STATE OR COUNTRY) 4b. Payment of Fee(s): (Please first reapply any previously paid issue fee shown above) 4a. The following fee(s) are submitted: lssue Fee A check is enclosed. Publication Fee (No small entity discount permitted) Payment by credit card. Form PTO-2038 is attached. The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number ______ (enclose an extra copy of this fo Advance Order - # of Copies _ (enclose an extra copy of this form). 5. Change in Entity Status (from status indicated above) a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27. ■ b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2). NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office. Authorized Signature Date Typed or printed name Registration No. This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.	
10/564,849	01/13/2006	Dorian Bevec	ARTHP1116US	2217	
23623 75	23623 7590 08/25/2008		EXAMINER		
AMIN, TUROCY & CALVIN, LLP 1900 EAST 9TH STREET, NATIONAL CITY CENTER			BRADLEY, CHRISTINA		
			ART UNIT	PAPER NUMBER	
24TH FLOOR, CLEVELAND, OH 44114			1654		
CLL VELAND, OI	1 77117		DATE MAILED: 08/25/2008		

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)

(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 0 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 0 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 (571)-272-4200.

	Application No.	Applicant(s)	
	10/564,849	BEVEC, DORIAN	
Notice of Allowability	Examiner	Art Unit	
	Christina Marchetti Bradley	1654	
The MAILING DATE of this communication appeal claims being allowable, PROSECUTION ON THE MERITS IS herewith (or previously mailed), a Notice of Allowance (PTOL-85) NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT R of the Office or upon petition by the applicant. See 37 CFR 1.313	(OR REMAINS) CLOSED in this or other appropriate communicat IGHTS. This application is subject and MPEP 1308.	application. If not included ion will be mailed in due course. THIS	
1. X This communication is responsive to the response filed 5/2	<u>20/06</u> .		
2. \square The allowed claim(s) is/are <u>1-6,9-15,17 and 18</u> .			
 3. Acknowledgment is made of a claim for foreign priority unanal All b) ☐ Some* c) ☐ None of the: 1. ☐ Certified copies of the priority documents have 2. ☐ Certified copies of the priority documents have 3. ☐ Copies of the certified copies of the priority do International Bureau (PCT Rule 17.2(a)). 	e been received. e been received in Application No.		
* Certified copies not received: Applicant has THREE MONTHS FROM THE "MAILING DATE" noted below. Failure to timely comply will result in ABANDONN THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.	MENT of this application.		
 A SUBSTITUTE OATH OR DECLARATION must be subm INFORMAL PATENT APPLICATION (PTO-152) which give 			
5. CORRECTED DRAWINGS (as "replacement sheets") mus	st be submitted.		
(a) ☐ including changes required by the Notice of Draftspers	son's Patent Drawing Review (PT	O-948) attached	
1) 🔲 hereto or 2) 🔲 to Paper No./Mail Date	,		
(b) ☐ including changes required by the attached Examiner' Paper No./Mail Date	s Amendment / Comment or in the	e Office action of	
Identifying indicia such as the application number (see 37 CFR 1 each sheet. Replacement sheet(s) should be labeled as such in t			
 DEPOSIT OF and/or INFORMATION about the depo attached Examiner's comment regarding REQUIREMENT 			
Attachment(s)	. 	ID () A " "	
 Notice of References Cited (PTO-892) D Notice of Draftperson's Patent Drawing Review (PTO-948) 	5.		
	Paper No./Mail I	Date	
 Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date 6/23/08, 5/6/08 	7. 🛛 Examiner's Amer	ndment/Comment	
4. 🔲 Examiner's Comment Regarding Requirement for Deposit	8. 🔲 Examiner's State	ment of Reasons for Allowance	
of Biological Material	9.		
	/Cecilia Tsang/ Supervisory Patent Exal Art Unit 1654	miner	

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EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Gregory Turocy on 8/14/2008.

The application has been amended as follows:

1. A method for inhibiting maturation of dendritic cells for the treatment of a pulmonary disease selected from idiopathic pulmonary fibrosis, hypersensitive pneumonia or diffused panbronchiolitis, comprising administering to a patient <u>in need thereof</u> a peptide or a polypeptide comprising the following amino acid sequence:

Arg-Lys-Gln-Met-Ala-Val-Lys-Lys-Tyr-Leu (SEQ ID NO: 4).

2. The method according to claim 1, wherein said peptide or polypeptide further comprises at least one of the following amino acid sequences:

His-Ser-Asp (SEQ ID NO: 14); and Phe-Thr-Asp (SEQ ID NO:13).

3. The method according to claim 1, wherein said peptide or polypeptide has the following amino acid sequence:

(A)_n-Arg-Lys-Gln-Met-Ala-Val-Lys-Lys-Tyr-Leu (SEQ ID NO: 4)-(B)_m

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wherein

 $(A)_n$ and $(B)_m$ independently are primary amino acid sequences comprising any sequence of natural occurring amino acids;

wherein n has a value from 0 to 25 and n is the number of amino acid residues in said primary amino acid sequence $(A)_n$; and

wherein m has a value from 0 to 25 and m is the number of amino acid residues in said primary amino acid sequence $(B)_{\rm m}$.

4. The method according to claim 3, wherein if n > 2, said primary amino acid sequence
 (A)_n further comprises is a primary amino acid sequence:

$$(X)_{o}$$
-Phe-Thr-Asp- $(Y)_{p}$;

wherein $(X)_o$ and $(Y)_p$ independently are primary amino acid sequences comprising any sequence of natural occurring amino acids;

wherein o has a value from 0 to 11 and o is the number of amino acid residues in said primary amino acid sequence $(X)_0$; and

wherein p has a value from 0 to 11 and p is the number of amino acid residues in said primary amino acid sequence $(Y)_p$.

5. The method according to claim 4, wherein if o > 2, said primary amino acid sequence (X)_o is(A)n further comprises a primary amino acid sequence:

$$(X')_q$$
-His-Ser-Asp- $(X'')_r$

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 $\underline{\mathbf{W}}\underline{\mathbf{w}}$ herein $(X')_q$ and $(X'')_r$ independently are primary amino acid sequences comprising any sequence of natural occurring amino acids;

wherein q has a value from 0 to 4 and q is the number of amino acid residues in said primary amino acid sequence $(X')_q$; and

wherein r has a value from 0 to 4 and r is the number of amino acid residues in said primary amino acid sequence $(X'')_r$.

- 6. The method according to claim 3, wherein the sequence of said peptide or polypeptide is selected from the following group:
 - (i) Arg-Lys-Gln-Met-Ala-Val-Lys-Lys-Tyr-Leu (SEQ ID NO: 4);
- (ii) Phe-Thr-Asp-X¹-X²-X³-X⁴-X⁵-Arg-Lys-Gln-Met-Ala-Val-Lys-Lys-Tyr-Leu-Asn-Ser-Ile-Leu-Asn (SEQ ID NO: 5);
- (iii) Phe-Thr-Asp-Asn-Tyr-Thr-Arg-Leu-Arg-[[-]]Lys-Gln-Met-Ala-Val-Lys-Lys-Tyr-Leu[[.]]-Asn-Ser-Ile-Leu-Asn (SEQ ID NO: 6);
- (iv) Phe-Thr-Asp-Ser-Tyr-Ser-Arg-Tyr-Arg-Lys-Gln-Met-Ala-Val-Lys-Lys-Tyr-Leu[[-]] (SEQ ID NO:7);
- (v) His-Ser-Asp-X¹-X²-Phe-Thr-Asp-X³-X⁴-X⁵-X⁶-X⁷-Arg-Lys-Gln-Met-Ala-Val-Lys-Lys-Tyr-Leu (SEQ ID NO: 9);
- (vi) His-Ser-Asp-Gly-Ile-Phe-Thr-Asp-Ser-Tyr-Ser-Arg-Tyr-Arg-Lys-Gln-Met-Ala-Val-Lys-Lys-Tyr-Leu (SEQ ID NO: 10);
- (vii) His-Ser-Asp- X^1 - X^2 -Phe-Thr-Asp-Asp- X^3 - X^4 - X^5 - X^6 - X^7 -Arg-Lys-Gln-Met-Ala-Val-Lys-Lys-Tyr-Leu- X^8 - X^9 - X^{10} - X^{11} [[(]]- X^{12} [[)]] (SEQ ID NO: 11);

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(viii) His-Ser-Asp-Ala-Val-Phe-Thr-Asp-Asn-Tyr-Thr-Arg-Leu-Arg-Lys-Gln-Met-Ala-Val-Lys-Lys-Tyr-Leu-Asn-Ser-Ile-Leu-Asn (VIP, SEQ ID NO: 1);

- (ix) His-Ser-Asp-Gly-Ile-Phe-Thr-Asp-Ser-Tyr-Ser-Arg-Tyr-Arg-Lys-Gln-Met-Ala-Val-Lys-Lys-Tyr-Leu-Ala-Ala-Val-Leu-Gly-Lys-Arg-Tyr-Lys-Gln-Arg-Val-Lys-Asn-Lys (PACAP-38) (SEQ ID NO: 2);
- (x) His-Ser-Asp- X^1 - X^2 -Phe-Thr-Asp- X^3 - X^4 - X^5 - X^6 - X^7 -Arg-Lys-Gln-Met-Ala-Val-Lys-Lys-Tyr-Leu- X^8 - X^9 - X^{10} - X^{11} - X^{12} - X^{13} - X^{14} - X^{15} - X^{16} - X^{17} - X^{18} - X^{19} - X^{20} - X^{21} - X^{22} (SEQ ID NO: 12); and
- (xi) His-Ser-Asp-Gly-Ile-Phe-Thr-Asp-Ser-Tyr-Ser-Arg-Tyr-Arg-Lys-Gln-Met-Ala-Val-Lys-Lys-Tyr-Leu-Ala-Ala-Val-Leu (PACAP-27, SEQ ID NO: 3); and wherein X^1 X^{22} are any naturally occurring amino acid residue.
 - 7. Cancelled
 - 8. Cancelled
- 9. The method according to claim 1, wherein said disease is idiopathic pulmonary fibrosis.
 - 10. The method according to claim 1, wherein said disease is hypersensitive pneumonia.
 - 11. The method according to claim 1, wherein said disease is diffused panbronchiolitis.

12. The method according to claim 1, wherein the therapeutically effective peptides are administered as aerosols.

- 13. The method according to claim 2, wherein said disease is idiopathic pulmonary fibrosis.
 - 14. The method according to claim 2, wherein said disease is hypersensitive pneumonia.
- 15. The method according to claim 2, wherein the therapeutically effective peptides are administered as aerosols.
 - 16. Cancelled
 - 17. The method according to claim 3, wherein said disease is diffused panbronchiolitis.
- 18. The method according to claim 3, wherein the therapeutically effective peptides are administered as aerosols.

Support for the amendment to claims 4 and 5 is found in the species recited in claim 6.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christina Marchetti Bradley whose telephone number is

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(571)272-9044. The examiner can normally be reached on Monday-Thursday, 9:00 A.M. to 3:00

P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Cecilia Tsang can be reached on (571) 272-0562. The fax phone number for the

organization where this application or proceeding is assigned is 571-273-8300.

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information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Cecilia Tsang/

Supervisory Patent Examiner, Art Unit 1654

/Christina Marchetti Bradley/ Examiner, Art Unit 1654

cmb